MEP Coordination & Clash Detection: Building Smarter in Florida

Precision-driven workflows that eliminate costly conflicts before they reach the field.

The Florida Construction Landscape: A Growing Challenge

Rapid Growth

Florida's booming development pipeline demands tighter coordination across increasingly complex, multi-discipline projects.

Traditional Methods Failing

Siloed workflows lead to costly rework, schedule overruns, and material waste that erode project margins.

Digital Imperative

Integrated, model-based workflows are no longer a competitive advantage – they are a project necessity.

What is MEP Coordination & Clash Detection?

MEP Coordination

The process of aligning **Mechanical, Electrical, and Plumbing** systems with architectural and structural elements to ensure every trade fits and functions as intended.

Clash Detection

Identifying **hard clashes** (direct physical conflicts) and **soft clashes** (clearance and code violations) between building systems – *before a single piece is installed*.

Goal: All components fit, function, and comply with Florida building codes.

The Cost of Clashes: Real-World Impact

$320K

Rework Avoided

Saved on a hospital complex by catching HVAC-electrical conflicts early – plus 3 weeks returned to schedule.

3 Wks

Schedule Recovered

Time saved when automated MEP validation flagged conflicts before framing began on a large medical facility.

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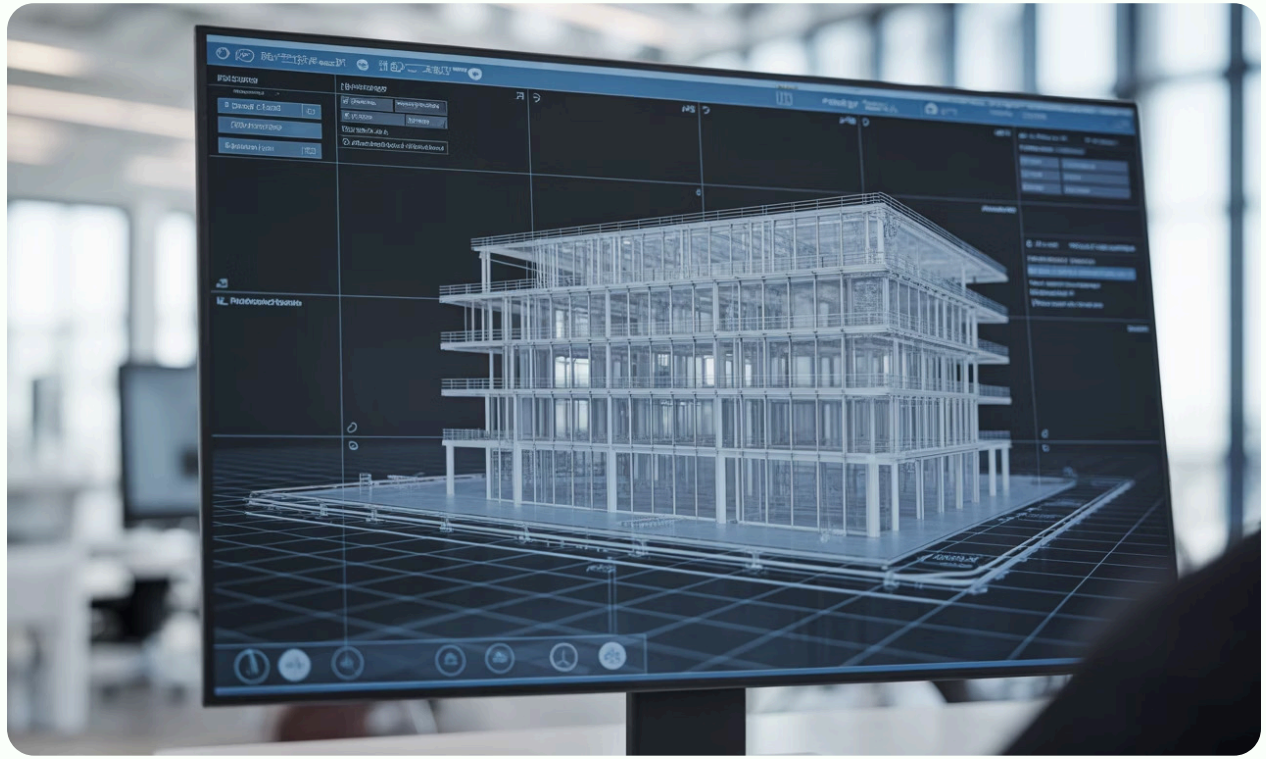
Clash Is Enough

A single 48-inch HVAC duct striking a structural beam can halt framing, trigger RFIs, and cascade across trades.

BIM: The Foundation for Coordination

Building Information Modeling (BIM) creates a unified digital environment where every discipline contributes to a single, intelligent model.

The **Federated Model** combines architecture, structural, and all MEP systems into one coordinated source of truth – enabling real-time collaboration and clash-free planning before breaking ground.

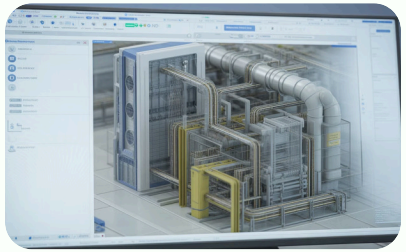


A well-maintained federated model reduces RFIs by up to 40% on complex projects.

Key Software & Tools for Clash Detection

Autodesk Navisworks

The industry standard for federating multi-discipline models and running automated clash detection at scale.



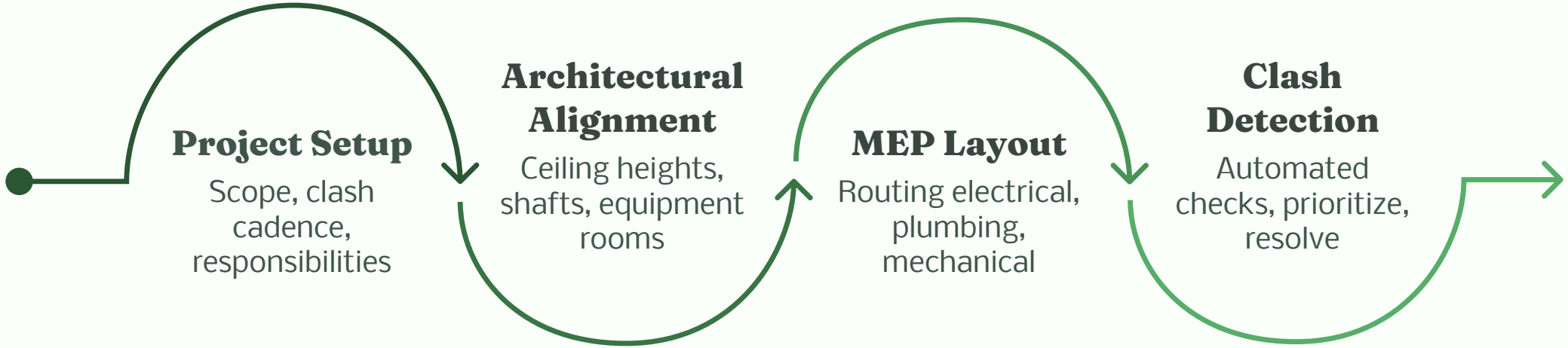
Autodesk Revit

Essential for building detailed MEP models and conducting preliminary interference checks during design.

Revizto & CheckToBuild

AI-powered platforms offering automated code compliance validation, interactive issue reporting, and real-time team collaboration.

The MEP Coordination Workflow



This structured four-phase process ensures every trade is coordinated before construction begins, reducing field conflicts and keeping schedules on track. *Source: Tejjyinc.*

Beyond Hard Clashes: Soft Clashes & Clearance Issues

Hard Clashes

Two physical elements occupying the same space – the most visible and immediately disruptive conflict type.

Soft Clashes

Violations of required clearances, maintenance access zones, or code-mandated spacing between systems.

Real Examples Caught Early

- Electrical conduit **C-078** flagged for insufficient 45mm clearance from adjacent structure
- **Sprinkler head SP-089 requiring 180mm** clearance from ductwork per NFPA code
- Both resolved in the model – zero field disruption

⚠ Soft clashes are often invisible until inspection – making model-based detection critical for Florida code compliance.

Benefits for Florida Construction Projects

Reduced Rework & Delays

Issues resolved in the model cost a fraction of field corrections, keeping schedules intact.

Improved Safety

Life-safety systems – fire suppression, egress lighting, emergency power – are verified for correct placement and access.

Enhanced Collaboration

A shared federated model fosters transparent communication across all trades and project stakeholders.

Significant Cost Savings

Documented savings of up to **$320,000** on large-scale projects through proactive clash resolution.

Tejjy Inc. Architectural Engineering

Your trusted Florida MEP Coordination partner since 2021.

MEP SHOP DRAWINGS | BIM COORDINATION | ESTIMATING

What Sets Us Apart

Tejjy Inc. Architectural Engineering specializes in delivering **precise, efficient, and innovative** MEP solutions tailored to Florida's unique building environment – from permitting requirements to hurricane-resilient system design.

- Detailed MEP shop drawings aligned to construction schedules
- Full BIM coordination and federated model management
- Accurate cost estimating that protects project budgets
- Proven track record across Florida commercial and residential projects

The Future is Coordinated

MEP coordination and clash detection are no longer optional – they are the baseline expectation for any serious Florida construction project. **Owners, GCs, and subcontractors who invest in BIM-driven workflows consistently deliver more predictable** schedules, healthier margins, and fewer surprises in the field.

→ **Detect conflicts in the model, not the field**

→ **Protect budgets and protect schedules**

→ **Build safer, smarter, and more efficiently**

Let's Build Without Clashes.

Ready to eliminate costly conflicts on your next Florida construction project? Our team is standing by to provide MEP coordination, BIM clash detection, and shop drawing services tailored to your scope.

📞 Get In Touch

Contact Tejjy Inc. Team to schedule a project consultation today.

📋 Request a Proposal

Share your project details and receive a tailored MEP coordination plan.

🌐 Learn More

Visit on **Tejjy Inc.** to explore our portfolio and service offerings across Florida.